

## Third Amendment under Art. 34 of PCT

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## CLAIMS:

1. (Thrice Amended) A plasma processing unit comprising;  
a processing container,

a first electrode disposed in the processing container,  
the first electrode having: a space connected to a process-gas supplying tube that supplies a process gas, a plurality of gas-dispersion holes formed on one side with respect to the space for supplying the process gas into the processing container, an opening for a measurement light formed on the side with respect to the space,

a second electrode arranged on one side of and a predetermined gap away from the gas-dispersion holes and the opening of the first electrode,

a power source unit that applies electric power between the first electrode and the second electrode and that generates plasma between the first electrode and the second electrode,

a window member having: an optical path that adjacently communicates with the other side of the opening for the measurement light, and a protrusion extending so as to surround the optical path and to come into contact with a portion of the first electrode on the side with respect to the space where no-gas dispersion hole is arranged, in order to separate the space from the optical path, and

a sealing member that causes the space to be shut off from the optical path.

2. (Amended) A plasma processing unit according to claim 1, wherein:

the opening and the optical path have an aspect ratio not less than 7.

3. (Amended) A plasma processing unit according to claim 1, further comprising:

a laser-measurement unit that emits a laser beam into the processing container through the optical path of the window member and that receives and measures reflection of the beam from the processing container through the optical path.

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4. (Amended) A plasma processing unit according to claim 1, wherein:

the opening is formed in a central portion of the first electrode, and

one or more additional openings are also formed in the central portion of the first electrode.

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Amended) A plasma processing unit comprising;

a processing container,

a first electrode disposed in the processing container, the first electrode having: a plurality of gas-dispersion holes for supplying a process gas into the processing container, an opening for a measurement light, and a space being connected to a process-gas supplying tube that supplies the process gas and communicating with the gas-dispersion holes,

a second electrode arranged on one side of and a predetermined gap away from the gas-dispersion holes and the opening of the first electrode,

a power source unit that applies electric power between the first electrode and the second electrode and that generates

plasma between the first electrode and the second electrode, and

a window member having: an optical path that adjacently communicates with the other side of the opening for the measurement light, and a transparent plate arranged with an inclination with respect to a plane perpendicular to the optical path, on the opposite side to the opening side of the optical path.

10. (Amended) A plasma processing unit according to claim 9, wherein:

the opening and the optical path have an aspect ratio not less than 7.

11. (Amended) A plasma processing unit according to claim

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9, further comprising:

a laser-measurement unit that emits a laser beam into the processing container through the optical path of the window member and that receives and measures reflection of the beam from the processing container through the optical path.

12. (Twice Amended) A plasma processing unit according to claim 9, wherein:

the opening is formed in a central portion of the first electrode, and

one or more additional openings are also formed in the central portion of the first electrode.

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Added) A plasma processing unit according to claim 9, further comprising:

a sealing member that causes the space to be shut off from the optical path.

17. (Added) A plasma processing unit according to claim 16, wherein:

the opening and the optical path have an aspect ratio not less than 7.

18. (Added) A plasma processing unit according to claim 16, further comprising:

a laser-measurement unit that emits a laser beam into the processing container through the optical path of the window member and that receives and measures reflection of the beam from the processing container through the optical path.

19. (Added) A plasma processing unit according to claim 16, wherein:

the opening is formed in a central portion of the first electrode, and

one or more additional openings are also formed in the central portion of the first electrode.

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